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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of
Alan M. Schilowitz, et al.

U. S. Serial No. 09/978,510
Filed: October 16, 2001

METHOD FOR REDUCING EMISSIONS FROM
HIGH PRESSURE COMMON RAIL FUEL
INJECTION DIESEL ENGINES

) Before the Examiner
) Walter Dean Griffin
)
) Confirmation Number: 4852
)
) Group Art Unit: 1764
)
) Family Number: P2000J095-US2

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

COMMUNICATION ACCOMPANYING REQUEST FOR
CONTINUED EXAMINATION (RCE)

Attached is a copy of pages 340-344 of the Automotive Fuels Handbook,
published by the Society of Automotive Engineers, Inc., 1990, by Owen and Coley.

At pages 340-344 the influence of density on diesel engine performance is
discussed.

It is indicated that fuel density is an important characteristic for diesel engine
performance in engines using fuel injection equipment. Higher density fuels tend to
produce more smoke but also produce more power.

I hereby certify that I have a reasonable basis for believing that this correspondence will be deposited with the
United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents,
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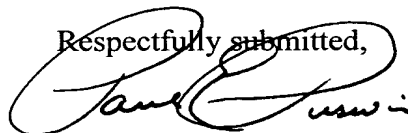
At page 341, Figure 14-12 shows that for DI and IDI engines power decreases as fuel density decreases.

Based upon this showing, it was totally unexpected that in the operation of high pressure common rail fuel injected diesel engines the use of a low density fuel did not result in a loss of power or a degrading of engine performance as experienced and documented above for DI and IDI engines.

Based on this, it is believed the present invention which is directed to a method for reducing emissions of common rail fuel system compression ignition engines without substantiated reduction in engine performance as evidenced by the absence of any significant reduction in acceleration by running the engine on a fuel comprising a diesel fuel characterized by having a density of about 0.83 g/cc or less, a viscosity of about 3 cSt or less at 40°C and a sulfur content of about 0.05 wt% or less is clearly inventive and not taught, suggested or implied in the literature and is actually opposite what would have been expected based upon the literature.

It is requested that the Examiner consider the article provided herewith and the above argument during the consideration of the previously unentered amendment after final submitted on 2 June 2003.

Respectfully submitted,



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☒ Pursuant to 37 CFR 1.34(a)

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